Rec'd PCT/PTO 24 JAN 2004

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

10/522662

(19) World Intellectual Property **Organization** International Bureau



(43) International Publication Date 29 January 2004 (29.01.2004)

PCT

(10) International Publication Number WO 2004/009094 A1

(51) International Patent Classification7:

A61K 31/70

(21) International Application Number:

PCT/US2002/023523

(22) International Filing Date:

24 July 2002 (24.07.2002)

(25) Filing Language:

English

(26) Publication Language:

English

- (71) Applicant (for all designated States except US): OHIO UNIVERSITY [US/US]; 20 East Circle Drive, Suite 190, Athens, OH 45701-3751 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CHEN, Xiao [US/US]; 8 Canterbury Drive, Athens, OH 45701 (US). LI, Yun Sheng [US/US]; 8 Canterbury Drive, Athens, OH 45701 (US). LI, Jing [CN/US]; 1319 Carriage Hill, Athens, OH 45701 (US). LIU, Fang [CN/US]; 1319 Carriage Hill, Athens, OH 45701 (US).
- (74) Agent: DOCHERTY, Pamela, A.; Calfee, Halter & Griswold LLP, 1400 McDonald Investment Center, 800 Superior Avenue, Cleveland, OH 44114 (US).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND COMPOSITIONS FOR TREATING DIABETES MELLITIS

(57) Abstract: Methods for modulating diabetes, impaired glucose tolerance, gestational diabetes and glucose resistance in a mammal, particularly a human. In one embodiment the method comprises administering a gallotannin composition to a mammal in need of the same. The gallotannin composition comprises one or more select hydrolysable gallotannins. In another embodiment the method comprises administering a gallotannin variant composition comprising one ore more select gallotannin variant compounds to the subject. Methods of preventing or treating weight gain in a subject. The method comprises administering the gallotannin composition of the present invention, the gallotannin variant composition of the present invention, or a combination of the gallotannin composition of the present invention and the gallotannin variant composition of the present invention to the subject. The present invention also relates a gallotannin variant compound or a salt thereof, and a pharmaceutical composition comprising such compound or the salt thereof.